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<110> EXELIXIS, INC.

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<130> RRPCIP2002

<150> US 09/908,419

<151> 2001-07-18

<150> US 60/219,289

<151> 2000-07-19

<150> US 60/277,487

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<150> US 60/304,863

<151> 2001-07-12

<150> US 60/296,076

<151> 2001-06-05

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<150> US 60/328,605

<151> 2001-10-10

<150> US 60/328,491

<151> 2001-10-10

<160> 70

<170> PatentIn version 3.1

<210> 1

<211> 1559

<212> DNA

<213> Homo sapiens

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gctggcggct cctcactgca gcagctggac cccgagaaca caggcttcat cggtgaggac 300

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 <212> PRT
 <213> Homo sapiens

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Ser	Cys	Pro	Pro	Pro	Val	Phe	Met	Ala	Ser	Val	Thr	Leu	Ala	Gln	Ile				
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Thr	Tyr	His	Pro	Glu	Tyr	Met	Lys	Ser	Pro	Leu	Val	Tyr	His	Pro	Gly				
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Val Pro Leu Glu Met Val His Gly Leu Leu Arg Ile Ser Leu Leu Tyr
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Leu Ala Gly Val Leu Ala Gly Ser Leu Thr Val Ser Ile Thr Asp Met
 290 295 300

Arg Ala Pro Val Val Gly Gly Ser Gly Gly Val Tyr Ala Leu Cys Ser
 305 310 315 320

Ala His Leu Ala Asn Val Val Met Asn Trp Ala Gly Met Arg Cys Pro
 325 330 335

Tyr Lys Leu Leu Arg Met Val Leu Ala Leu Val Cys Met Ser Ser Glu
 340 345 350

Val Gly Arg Ala Val Trp Leu Arg Phe Ser Pro Pro Leu Pro Ala Ser
 355 360 365

Gly Pro Gln Pro Ser Phe Met Ala His Leu Ala Gly Ala Val Val Gly
 370 375 380

Val Ser Met Gly Leu Thr Ile Leu Arg Ser Tyr Glu Glu Arg Leu Arg
 385 390 395 400

Asp Gln Cys Gly Trp Trp Val Val Leu Leu Ala Tyr Gly Thr Phe Leu
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His Ile Pro Pro Pro
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<210> 3

<211> 1224

<212> DNA

<213> Homo sapiens

<400> 3

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<400> 4

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Asp Gly Gly Gly Lys Asp Arg Ala Lys Ser Lys Lys Val His Arg Ile
35 40 45

Val Ser Lys Trp Met Leu Pro Glu Lys Ser Arg Gly Thr Tyr Leu Glu
50 55 60

Arg Ala Asn Cys Phe Pro Pro Pro Val Phe Ile Ile Ser Ile Ser Leu
65 70 75 80

Ala Glu Leu Ala Val Phe Ile Tyr Tyr Ala Val Trp Lys Pro Gln Lys
85 90 95

Gln Trp Ile Thr Leu Asp Thr Gly Ile Leu Glu Ser Pro Phe Ile Tyr
100 105 110

Ser Pro Glu Lys Arg Glu Glu Ala Trp Arg Phe Ile Ser Tyr Met Leu
115 120 125

Val His Ala Gly Val Gln His Ile Leu Gly Asn Leu Cys Met Gln Leu
130 135 140

Val Leu Gly Ile Pro Leu Glu Met Val His Lys Gly Leu Arg Val Gly
145 150 155 160

Leu Val Tyr Leu Ala Gly Val Ile Ala Gly Ser Leu Ala Ser Ser Ile
165 170 175

Phe Asp Pro Leu Arg Tyr Leu Val Gly Ala Ser Gly Gly Val Tyr Ala
180 185 190

Leu Met Gly Gly Tyr Phe Met Asn Val Leu Val Asn Phe Gln Glu Met
195 200 205

Ile Pro Ala Phe Gly Ile Phe Arg Leu Leu Ile Ile Ile Leu Ile Ile
210 215 220

Val Leu Asp Met Gly Phe Ala Leu Tyr Arg Arg Phe Phe Val Pro Glu
225 230 235 240

Asp Gly Ser Pro Val Ser Phe Ala Ala His Ile Ala Gly Gly Phe Ala
245 250 255

Gly Met Ser Ile Gly Tyr Thr Val Phe Ser Cys Phe Asp Lys Ala Leu
260 265 270

Leu Lys Asp Pro Arg Phe Trp Ile Ala Ile Ala Ala Tyr Leu Ala Cys

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280

285

Val Leu Phe Ala Val Phe Phe Asn Ile Phe Leu Ser Pro Ala Asn
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 <212> DNA
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1376

<210> 6
 <211> 362
 <212> PRT
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<400> 6

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Arg Glu Val Leu Leu Ala Leu Ala Asp Ser His Ala Asp Gly Gln Ile
 35 40 45

Gly Tyr Gln Asp Phe Val Ser Leu Val Ser Asn Lys Arg Ser Asn Ser
 50 55 60

Phe Arg Gln Ala Ile Leu Gln Gly Asn Arg Arg Leu Ser Ser Lys Ala
 65 70 75 80

Leu Leu Glu Glu Lys Gly Leu Ser Leu Ser Gln Arg Leu Ile Arg His
 85 90 95

Val Ala Tyr Glu Thr Leu Pro Arg Glu Ile Asp Arg Lys Trp Tyr Tyr
 100 105 110

Asp Ser Tyr Thr Cys Cys Pro Pro Pro Trp Phe Met Ile Thr Val Thr
 115 120 125

Leu Leu Glu Val Ala Phe Phe Leu Tyr Asn Gly Val Ser Leu Gly Gln
 130 135 140

Phe Val Leu Gln Val Thr His Pro Arg Tyr Leu Lys Asn Ser Leu Val
 145 150 155 160

Tyr His Pro Gln Leu Arg Ala Gln Val Trp Arg Tyr Leu Thr Tyr Ile
 165 170 175

Phe Met His Ala Gly Ile Glu His Leu Gly Leu Asn Val Val Leu Gln
 180 185 190

Leu Leu Val Gly Val Pro Leu Glu Met Val His Gly Ala Thr Arg Ile
195 200 205

Gly Leu Val Tyr Val Ala Gly Val Val Ala Gly Ser Leu Ala Val Ser
210 215 220

Val Ala Asp Met Thr Ala Pro Val Val Gly Ser Ser Gly Gly Val Tyr
225 230 235 240

Ala Leu Val Ser Ala His Leu Ala Asn Ile Val Met Asn Trp Ser Gly
245 250 255

Met Lys Cys Gln Phe Lys Leu Leu Arg Met Ala Val Ala Leu Ile Cys
260 265 270

Met Ser Met Glu Phe Gly Arg Ala Val Trp Leu Arg Phe His Pro Ser
275 280 285

Ala Tyr Pro Pro Cys Pro His Pro Ser Phe Val Ala His Leu Gly Gly
290 295 300

Val Ala Val Gly Ile Thr Leu Gly Val Val Val Leu Arg Asn Tyr Glu
305 310 315 320

Gln Arg Leu Gln Asp Gln Ser Leu Trp Trp Ile Phe Val Ala Met Tyr
325 330 335

Thr Val Phe Val Leu Phe Ala Val Phe Trp Asn Ile Phe Ala Tyr Thr
340 345 350

Leu Leu Asp Leu Lys Leu Pro Pro Pro Pro
355 360

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<212> DNA
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<210> 8
 <211> 379
 <212> PRT
 <213> Homo sapiens
 <400> 8

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Leu Thr Pro Pro Gln Leu Leu Gly Arg Arg Phe Asn Phe Phe Ile Gln
 35 40 45

Gln Lys Cys Gly Phe Arg Lys Ala Pro Arg Lys Val Glu Pro Arg Arg
 50 55 60

Ser Asp Pro Gly Thr Ser Gly Glu Ala Tyr Lys Arg Ser Ala Leu Ile

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Pro	Pro	Val	Glu	Glu	Thr	Val	Phe	Tyr	Pro	Ser	Pro	Tyr	Pro	Ile	Arg
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Ser	Leu	Ile	Lys	Pro	Leu	Phe	Phe	Thr	Val	Gly	Phe	Thr	Gly	Cys	Ala
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Phe	Gly	Ser	Ala	Ala	Ile	Trp	Gln	Tyr	Glu	Ser	Leu	Lys	Ser	Arg	Val
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Gln	Ser	Tyr	Phe	Asp	Gly	Ile	Lys	Ala	Asp	Trp	Leu	Asp	Ser	Ile	Arg
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Asn	Leu	Ser	Asp	Gly	Gln	Arg	Thr	Val	Thr	Gly	Ile	Ile	Ala	Ala	Asn
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Val	Leu	Val	Phe	Cys	Leu	Trp	Arg	Val	Pro	Ser	Leu	Gln	Arg	Thr	Met
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Ile	Arg	Tyr	Phe	Thr	Ser	Asn	Pro	Ala	Ser	Lys	Val	Leu	Cys	Ser	Pro
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	210					215					220				
Asn	Met	Tyr	Val	Leu	Trp	Ser	Phe	Ser	Ser	Ser	Ile	Val	Asn	Ile	Leu
225					230					235				240	
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Asn	Phe	Val	Ser	Tyr	Leu	Gly	Lys	Val	Ala	Thr	Gly	Arg	Tyr	Gly	Pro
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Ser	Leu	Gly	Ala	Ser	Gly	Ala	Ile	Met	Thr	Val	Leu	Ala	Ala	Val	Cys
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Thr	Lys	Ile	Pro	Glu	Gly	Arg	Leu	Ala	Ile	Ile	Phe	Leu	Pro	Met	Phe
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Thr Phe Thr Ala Gly Asn Ala Leu Lys Ala Ile Ile Ala Met Asp Thr
305 310 315 320

Ala Gly Met Ile Leu Gly Trp Lys Phe Phe Asp His Ala Ala His Leu
325 330 335

Gly Gly Ala Leu Phe Gly Ile Trp Tyr Val Thr Tyr Gly His Glu Leu
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Ile Trp Lys Asn Arg Glu Pro Leu Val Lys Ile Trp His Glu Ile Arg
355 360 365

Thr Asn Gly Pro Lys Lys Gly Gly Gly Ser Lys
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<210> 9

<211> 2964

<212> DNA

<213> Homo sapiens

<400> 9

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<400> 10

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Pro Pro Trp Leu Lys Leu Asp Ile Pro Ser Ala Val Pro Leu Thr Ala
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Glu Glu Pro Ser Phe Leu Gln Pro Leu Arg Arg Gln Ala Phe Leu Arg
 35 40 45

Ser Val Ser Met Pro Ala Glu Thr Ala His Ile Ser Ser Pro His His
 50 55 60

Glu Leu Arg Arg Pro Val Leu Gln Arg Gln Thr Ser Ile Thr Gln Thr
 65 70 75 80

Ile Arg Arg Gly Thr Ala Asp Trp Phe Gly Val Ser Lys Asp Ser Asp
 85 90 95

Ser Thr Gln Lys Trp Gln Arg Lys Ser Ile Arg His Cys Ser Gln Arg
 100 105 110

Tyr Gly Lys Leu Lys Pro Gln Val Leu Arg Glu Leu Asp Leu Pro Ser
 115 120 125

Gln Asp Asn Val Ser Leu Thr Ser Thr Glu Thr Pro Pro Pro Leu Tyr
 130 135 140

Val Gly Pro Cys Gln Leu Gly Met Gln Lys Ile Ile Asp Pro Leu Ala
145 150 155 160

Arg Gly Arg Ala Phe Arg Val Ala Asp Asp Thr Ala Glu Gly Leu Ser
165 170 175

Ala Pro His Thr Pro Val Thr Pro Gly Ala Ala Ser Leu Cys Ser Phe
180 185 190

Ser Ser Ser Arg Ser Gly Phe His Arg Leu Pro Arg Arg Arg Lys Arg
195 200 205

Glu Ser Val Ala Lys Met Ser Phe Arg Ala Ala Ala Ala Leu Met Lys
210 215 220

Gly Arg Ser Val Arg Asp Gly Thr Phe Arg Arg Ala Gln Arg Arg Ser
225 230 235 240

Phe Thr Pro Ala Ser Phe Leu Glu Glu Asp Thr Thr Asp Phe Pro Asp
245 250 255

Glu Leu Asp Thr Ser Phe Phe Ala Arg Glu Gly Ile Leu His Glu Glu
260 265 270

Leu Ser Thr Tyr Pro Asp Glu Val Phe Glu Ser Pro Ser Glu Ala Ala
275 280 285

Leu Lys Asp Trp Glu Lys Ala Pro Glu Gln Ala Asp Leu Thr Gly Gly
290 295 300

Ala Leu Asp Arg Ser Glu Leu Glu Arg Ser His Leu Met Leu Pro Leu
305 310 315 320

Glu Arg Gly Trp Arg Lys Gln Lys Glu Gly Ala Ala Ala Pro Gln Pro
325 330 335

Lys Val Arg Leu Arg Gln Glu Val Val Ser Thr Ala Gly Pro Arg Arg
340 345 350

Gly Gln Arg Ile Ala Val Pro Val Arg Lys Leu Phe Ala Arg Glu Lys
355 360 365

Arg Pro Tyr Gly Leu Gly Met Val Gly Arg Leu Thr Asn Arg Thr Tyr
370 375 380

Arg Lys Arg Ile Asp Ser Phe Val Lys Arg Gln Ile Glu Asp Met Asp
385 390 395 400

Asp His Arg Pro Phe Phe Thr Tyr Trp Leu Thr Phe Val His Ser Leu
405 410 415

Val Ala Ile Leu Ala Val Cys Ile Tyr Gly Ile Ala Pro Val Gly Phe
420 425 430

Ser Gln His Glu Thr Val Asp Ser Val Leu Arg Asn Arg Gly Val Tyr
435 440 445

Glu Asn Val Lys Tyr Val Gln Gln Glu Asn Phe Trp Ile Gly Pro Ser
450 455 460

Ser Glu Ala Leu Ile His Leu Gly Ala Lys Phe Ser Pro Cys Met Arg
465 470 475 480

Gln Asp Pro Gln Val His Ser Phe Ile Arg Ser Ala Arg Glu Arg Glu
485 490 495

Lys His Ser Ala Cys Cys Val Arg Asn Asp Arg Ser Gly Cys Val Gln
500 505 510

Thr Ser Glu Glu Glu Cys Ser Ser Thr Leu Ala Val Trp Val Lys Trp
515 520 525

Pro Ile His Pro Ser Ala Pro Glu Leu Ala Gly His Lys Arg Gln Phe
530 535 540

Gly Ser Val Cys His Gln Asp Pro Arg Val Cys Asp Glu Pro Ser Ser
545 550 555 560

Glu Asp Pro His Glu Trp Pro Glu Asp Ile Thr Lys Trp Pro Ile Cys
565 570 575

Thr Lys Asn Ser Ala Gly Asn His Thr Asn His Pro His Met Asp Cys
580 585 590

Val Ile Thr Gly Arg Pro Cys Cys Ile Gly Thr Lys Gly Arg Cys Glu

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Glu	Ala	Thr	Leu	Cys	Ser	Gln	Val	His	Cys	Met	Asp	Asp	Val	Cys	Gly
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Leu	Leu	Pro	Phe	Leu	Asn	Pro	Glu	Val	Pro	Asp	Gln	Phe	Tyr	Arg	Leu
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Trp	Leu	Ser	Leu	Phe	Leu	His	Ala	Gly	Ile	Leu	His	Cys	Leu	Val	Ser
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Gly	Ser	Gln	Phe	Gly	Ile	Leu	Ala	Cys	Leu	Phe	Val	Glu	Leu	Phe	Gln
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Ser	Trp	Gln	Ile	Leu	Ala	Arg	Pro	Trp	Arg	Ala	Phe	Phe	Lys	Leu	Leu
			740					745					750		
Ala	Val	Val	Leu	Phe	Leu	Phe	Thr	Phe	Gly	Leu	Leu	Pro	Trp	Ile	Asp
		755					760					765			
Asn	Phe	Ala	His	Ile	Ser	Gly	Phe	Ile	Ser	Gly	Leu	Phe	Leu	Ser	Phe
	770					775					780				
Ala	Phe	Leu	Pro	Tyr	Ile	Ser	Phe	Gly	Lys	Phe	Asp	Leu	Tyr	Arg	Lys
785					790					795					800
Arg	Cys	Gln	Ile	Ile	Ile	Phe	Gln	Val	Val	Phe	Leu	Gly	Leu	Leu	Ala
				805					810					815	
Gly	Leu	Val	Val	Leu	Phe	Tyr	Val	Tyr	Pro	Val	Arg	Cys	Glu	Trp	Cys
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835 840 845

Glu Leu Asp Ala Gln Leu His
850 855

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<211> 2643
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<213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

<400> 12

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Arg Ser Phe Ala Phe Pro Ser Phe Leu Glu Glu Asp Val Val Asp Gly
35 40 45

Ala Asp Thr Phe Asp Ser Ser Phe Phe Ser Lys Glu Glu Met Ser Ser
50 55 60

Met Pro Asp Asp Val Phe Glu Ser Pro Pro Leu Ser Ala Ser Tyr Phe
65 70 75 80

Arg Gly Ile Pro His Ser Ala Ser Pro Val Ser Pro Asp Gly Val Gln
85 90 95

Ile Pro Leu Lys Glu Tyr Gly Arg Ala Pro Val Pro Gly Pro Arg Arg
100 105 110

Gly Lys Arg Ile Ala Ser Lys Val Lys His Phe Ala Phe Asp Arg Lys
115 120 125

Lys Arg His Tyr Gly Leu Gly Val Val Gly Asn Trp Leu Asn Arg Ser
130 135 140

Tyr Arg Arg Ser Ile Ser Ser Thr Val Gln Arg Gln Leu Glu Ser Phe
145 150 155 160

Asp Ser His Arg Pro Tyr Phe Thr Tyr Trp Leu Thr Phe Val His Val
165 170 175

Ile Ile Thr Leu Leu Val Ile Cys Thr Tyr Gly Ile Ala Pro Val Gly
180 185 190

Phe Ala Gln His Val Thr Thr Gln Leu Val Leu Arg Asn Lys Gly Val
195 200 205

Tyr Glu Ser Val Lys Tyr Ile Gln Gln Glu Asn Phe Trp Val Gly Pro
210 215 220

Ser Ser Ile Asp Leu Ile His Leu Gly Ala Lys Phe Ser Pro Cys Ile

225					230					235					240
Arg	Lys	Asp	Gly	Gln	Ile	Glu	Gln	Leu	Val	Leu	Arg	Glu	Arg	Asp	Leu
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Glu	Arg	Asp	Ser	Gly	Cys	Cys	Val	Gln	Asn	Asp	His	Ser	Gly	Cys	Ile
			260					265					270		
Gln	Thr	Gln	Arg	Lys	Asp	Cys	Ser	Glu	Thr	Leu	Ala	Thr	Phe	Val	Lys
		275					280					285			
Trp	Gln	Asp	Asp	Thr	Gly	Pro	Pro	Met	Asp	Lys	Ser	Asp	Leu	Gly	Gln
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Lys	Arg	Thr	Ser	Gly	Ala	Val	Cys	His	Gln	Asp	Pro	Arg	Thr	Cys	Glu
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Glu	Pro	Ala	Ser	Ser	Gly	Ala	His	Ile	Trp	Pro	Asp	Asp	Ile	Thr	Lys
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Trp	Pro	Ile	Cys	Thr	Glu	Gln	Ala	Arg	Ser	Asn	His	Thr	Gly	Phe	Leu
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His	Met	Asp	Cys	Glu	Ile	Lys	Gly	Arg	Pro	Cys	Cys	Ile	Gly	Thr	Lys
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Tyr	Phe	His	Glu	Glu	Ala	Thr	Leu	Cys	Ser	Gln	Val	His	Cys	Leu	Asp
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Lys	Val	Cys	Gly	Leu	Leu	Pro	Phe	Leu	Asn	Pro	Glu	Val	Pro	Asp	Gln
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Phe	Tyr	Arg	Leu	Trp	Leu	Ser	Leu	Phe	Leu	His	Ala	Gly	Val	Val	His
			420					425					430		
Cys	Leu	Val	Ser	Val	Val	Phe	Gln	Met	Thr	Ile	Leu	Arg	Asp	Leu	Glu
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Lys	Leu	Ala	Gly	Trp	His	Arg	Ile	Ala	Ile	Ile	Phe	Ile	Leu	Ser	Gly
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Ile Thr Gly Asn Leu Ala Ser Ala Ile Phe Leu Pro Tyr Arg Ala Glu
465 470 475 480

Val Gly Pro Ala Gly Ser Gln Phe Gly Leu Leu Ala Cys Leu Phe Val
485 490 495

Glu Leu Phe Gln Ser Trp Pro Leu Leu Glu Arg Pro Trp Lys Ala Phe
500 505 510

Leu Asn Leu Ser Ala Ile Val Leu Phe Leu Phe Ile Cys Gly Leu Leu
515 520 525

Pro Trp Ile Asp Asn Ile Ala His Ile Phe Gly Phe Leu Ser Gly Leu
530 535 540

Leu Leu Ala Phe Ala Phe Leu Pro Tyr Ile Thr Phe Gly Thr Ser Asp
545 550 555 560

Lys Tyr Arg Lys Arg Ala Leu Ile Leu Val Ser Leu Leu Ala Phe Ala
565 570 575

Gly Leu Phe Ala Ala Leu Val Leu Trp Leu Tyr Ile Tyr Pro Ile Asn
580 585 590

Trp Pro Trp Ile Glu His Leu Thr Cys Phe Pro Phe Thr Ser Arg Phe
595 600 605

Cys Glu Lys Tyr Glu Leu Asp Gln Val Leu His
610 615

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ggaacgacgg cggccatggc ggcctcgggg cccgggtgtc gcagctggtg cttgtgtccc 180
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<400> 14

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Val Ala Lys Gly Asn Cys Arg Glu Glu Ala Glu Gly Ala Glu Asp Arg
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Gln Pro Ala Ser Arg Arg Gly Ala Gly Thr Thr Ala Ala Met Ala Ala
 35 40 45

Ser Gly Pro Gly Cys Arg Ser Trp Cys Leu Cys Pro Glu Val Pro Ser
 50 55 60

Ala Thr Phe Phe Thr Ala Leu Leu Ser Leu Leu Val Ser Gly Pro Arg
65 70 75 80

Leu Phe Leu Leu Gln Gln Pro Leu Ala Pro Ser Gly Leu Thr Leu Lys
85 90 95

Ser Glu Ala Leu Arg Asn Trp Gln Val Tyr Arg Leu Val Thr Tyr Ile
100 105 110

Phe Val Tyr Glu Asn Pro Ile Ser Leu Leu Cys Gly Ala Ile Ile Ile
115 120 125

Trp Arg Phe Ala Gly Asn Phe Glu Arg Thr Val Gly Thr Val Arg His
130 135 140

Cys Phe Phe Thr Val Ile Phe Ala Ile Phe Ser Ala Ile Ile Phe Leu
145 150 155 160

Ser Phe Glu Ala Val Ser Ser Leu Ser Lys Leu Gly Glu Val Glu Asp
165 170 175

Ala Arg Gly Phe Thr Pro Val Ala Phe Ala Met Leu Gly Val Thr Thr
180 185 190

Val Arg Ser Arg Met Arg Arg Ala Leu Val Phe Gly Met Val Val Pro
195 200 205

Ser Val Leu Val Pro Trp Leu Leu Leu Gly Ala Ser Trp Leu Ile Pro
210 215 220

Gln Thr Ser Phe Leu Ser Asn Val Cys Gly Leu Ser Ile Gly Leu Ala
225 230 235 240

Tyr Ala His Leu Leu Leu Phe His Arg Pro Leu Arg Ala Ser Gly Ala
245 250 255

Glu Ala Arg Ser Asp Leu Pro Leu Gln Pro Asp Glu Glu Asp Ile Arg
260 265 270

Val Gln Val Arg Leu Arg Val Phe Ser Arg Glu Glu Gly Ser Pro Glu
275 280 285

Pro Glu Thr Glu Pro Gly Ala Trp Leu Leu Pro His Thr Glu Leu Pro
290 295 300

Pro Ser Pro Val Pro Lys Pro Pro Cys Val Pro Asp Ala Ala Arg Gln
305 310 315 320

Trp Ser Glu Ala Gly Leu Leu Ala Ser Cys Thr Pro Gly His Met Pro
325 330 335

Thr Leu Pro Pro Tyr Gln Pro Ala Ser Gly Leu Cys Tyr Val Gln Asn
340 345 350

His Phe Gly Pro Asn Pro Thr Ser Ser Ser Val Tyr Pro Ala Ser Ala
355 360 365

Gly Thr Ser Leu Gly Ile Gln Pro Pro Thr Pro Val Asn Ser Pro Gly
370 375 380

Thr Val Tyr Ser Gly Ala Leu Gly His Gln Gly Leu Gln Ala Pro Arg
385 390 395 400

Ser Pro Pro Gly Ser Pro Cys Pro Glu Arg Ile Ser Arg Glu Val Ile
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Ser Leu Gly Leu Leu Lys Val Leu Pro Lys Ser Leu Leu Thr Lys Val
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Thr Tyr

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<210> 16
 <211> 386
 <212> PRT
 <213> Homo sapiens

<400> 16

Met His Ala Arg Gly Pro His Gly Gln Leu Ser Pro Ala Leu Pro Leu

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		35					40					45					
Gln	Val	His	Arg	Leu	Leu	Thr	His	Ala	Leu	Gly	His	Thr	Ala	Leu	Pro		
	50					55					60						
Gly	Leu	Leu	Leu	Ser	Leu	Leu	Leu	Leu	Pro	Thr	Val	Gly	Trp	Gln	Gln		
65					70					75					80		
Glu	Cys	His	Leu	Gly	Thr	Leu	Arg	Phe	Leu	His	Ala	Ser	Ala	Leu	Leu		
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			100					105					110				
Ser	Ser	Ala	Ala	Gly	Ser	Cys	Gly	Tyr	Met	Pro	Val	His	Leu	Ala	Met		
		115					120					125					
Leu	Ala	Gly	Glu	Gly	His	Arg	Pro	Arg	Arg	Pro	Arg	Gly	Ala	Leu	Pro		
	130					135					140						
Pro	Trp	Leu	Ser	Pro	Trp	Leu	Leu	Leu	Ala	Leu	Thr	Pro	Leu	Leu	Ser		
145					150					155					160		
Ser	Glu	Pro	Pro	Phe	Leu	Gln	Leu	Leu	Cys	Gly	Leu	Leu	Ala	Gly	Leu		
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Ala	Tyr	Ala	Ala	Gly	Ala	Phe	Arg	Trp	Leu	Glu	Pro	Ser	Glu	Arg	Arg		
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	195						200					205					
Trp	Pro	Leu	Arg	Leu	Leu	Ala	Thr	Pro	Gly	Ser	Leu	Ala	Glu	Leu	Pro		
	210					215					220						
Val	Thr	His	Pro	Ala	Gly	Val	Arg	Pro	Pro	Ile	Pro	Gly	Pro	Pro	Tyr		
225					230					235					240		

Val Ala Ser Pro Asp Leu Trp Ser His Trp Glu Asp Ser Ala Leu Pro
 245 250 255

Pro Pro Ser Leu Arg Pro Val Gln Pro Thr Trp Glu Gly Ser Ser Glu
 260 265 270

Ala Gly Leu Asp Trp Ala Gly Ala Ser Phe Ser Pro Gly Thr Pro Met
 275 280 285

Trp Ala Ala Leu Asp Glu Gln Met Leu Gln Glu Gly Ile Gln Ala Ser
 290 295 300

Leu Leu Asp Gly Pro Ala Gln Glu Pro Gln Ser Ala Pro Trp Leu Ser
 305 310 315 320

Lys Ser Ser Val Ser Ser Leu Arg Leu Gln Gln Leu Glu Arg Met Gly
 325 330 335

Phe Pro Thr Glu Gln Ala Val Val Ala Leu Ala Ala Thr Gly Arg Val
 340 345 350

Glu Gly Ala Val Ser Leu Leu Val Gly Gly Gln Val Gly Thr Glu Thr
 355 360 365

Leu Val Thr His Gly Lys Gly Gly Pro Ala His Ser Glu Gly Pro Gly
 370 375 380

Pro Pro
 385

<210> 17
 <211> 19
 <212> PRT
 <213> Homo sapiens

<400> 17

Met Gly Arg Val Glu Asp Gly Gly Thr Thr Glu Glu Leu Glu Asp Trp
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Asp Pro Gly

<210> 18
 <211> 1559
 <212> DNA
 <213> Homo sapiens

<400> 18
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 cccagggaac agacaggcac gggggccctg tcccaaaagt gctgggagcc tgagcctgat 180
 gctcccagcc agcctggccc agcccttttg tccaggggtc gggcccgcac tcaggccttg 240
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 accttactg gcctggtgca cagccatgag ctgcccttg acccgccaa gctggacatg 360
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 ctgccccggg acgggcccgt ggatgagcca ggcctaggtg tctacaagcg gtttgtgctg 540
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 cgcagctgcc cccccccgt gttcatggcc tcggtcactc ttgccagat catcgtgttc 660
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 aagagcccc ttgtgtacca cccggggcac cgtgcccgcg cctggcgctt cctcacctac 780
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 tccggcgggg tctacgcct gtgctcggca cacctggcca acgttgtcat gaactgggct 1020
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 ctgctgtgcc ccttgggtgt ggggtggcctc aaaggaggcc ctgtcccagc caccacccc 1500
 ccactcccag gacttgcggt ctgagccttt ttggataatt aataaatatt ttacacagc 1559

<210> 19
 <211> 593
 <212> DNA
 <213> Homo sapiens

<400> 19
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 atgctgggtac atgctggagt tcagcacatc ttggggaatc tttgtatgca gcttggtttg 180
 ggtattccct tggaaatggt ccacaaaggc ctccgtgtgg ggctgggtgta cctggcagga 240
 gtgattgcag ggtcccttgc cagctccatc tttgaccac tcagatatct tgtgggagct 300
 tcaggaggag tctatgctct gatgggaggc tattttatga atgttctggt gaattttcaa 360
 gaaatgattc ctgccttttg aattttcaga ctgctgatca tcacctgat aattgtgttg 420
 gacatgggat ttgctctcta tagaagggtc tttgttcctg aagatgggtc tccggtgtct 480
 tttgcagctc acattgcagg tggatttgct ggaatgtcca ttggctacac ggtgtttagc 540
 tgctttgata aagcactgct gaaagatcca aggttatgga tagcaattgc tgc 593

<210> 20
 <211> 708
 <212> DNA
 <213> Homo sapiens

<400> 20
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 agcctggaac gcaaggaccg gagggcgtgg gctgggacgc ccctacgttg gtctttcagg 120
 gaaaggcctt ggaaagcagt cgttgcgcca gacagcccag ggaagagcgg cagcctgagg 180
 acctagggcc acctgctgtt ccctgggatt catgtccttc tggggaggag ggaggacca 240
 ggacaatggc tgctgttcat gatctggaga tggagagcat gaatctgaat atggggagag 300
 agatgaaaga agagctggag gaagaggaga aaatgagaga ggatggggga ggtaaagatc 360
 gggccaagag taaaaaggtc cacaggattg tctcaaatg gatgctgcc gaaaagtccc 420
 gaggaacata cttggagaga gctaactgct tcccgcctcc cgtgttcac atctccatca 480
 gcctggccga gctggcagt tttatttact atgctgtgtg gaagcctcag aaacagtgga 540
 tcacgttgga cacaggcatc ttggagagtc cttttatcta cagtccctgag aagagggagg 600
 aagcctggag gtttatctca tacatgctgg tacatgctgg gtaagcaatg atagttaagc 660

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708

<210> 21
<211> 616
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (498)..(498)
<223> "n" is A, C, G, or T

<400> 21
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ctgagacttc tctgtttctt catagaggct tccctttttt tttttatttc ctccagatgg 180
ctctttttat taattgactt acaatagggg caggtcagtt tgctggagat aggaaaatgt 240
tgaaaaacac agcaaataag acacaagcta aatatgcagc aattgctatc caaaaccttg 300
gatctttcat cagtgtctta tcaaagcagc taaacaccgt gtagccaatg gacattccag 360
caaatccacc tgcaatgtga gctgcaaaag acaccggaga cccatcttca ggaacaaaga 420
accttctata gagagcaaatt cccatgtcca acacaattat caggatgatg atcagcagtc 480
tgaaaatttc aaaggcanga atcatttctt gaaaattcac cagaacattc ataaaatagc 540
ctcccatcag agcatagact cctcctgaag ctcccacaag atatctgagt ggggtcaaaga 600
tggagctggc aaggga 616

<210> 22
<211> 354
<212> DNA
<213> Homo sapiens

<400> 22
tggatcacgt tggacacagg catttggaga gtccctttat ctacagtcct gagaagaggg 60
aggaagcctg gaggtttatc tcacacatgc tggatcatgc tggagtccag cacatcttgg 120
ggaatctttg tatgcagctt gttttgggta ttcccttggg aatgggtccac aaaggcctcc 180
gtgtggggct ggtgtacctg gcaggagtga ttgcagggtc ccttgccagc tccatctttg 240
accactcag atatcttgtg ggagcttcag gaggagtcta tgctctgatg ggaggctatt 300
ttatgaatgt tctggtgaat tttcaagaaa tgattcctgc ctttggaatt ttca 354

<210> 23
 <211> 356
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (356)..(356)
 <223> "n" is A, C, G, or T

<400> 23
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 cagacagccc agggaagagc ggcacgctga ggacctaggg ccacctgctg ttccttgga 180
 ttcattgtct tctggggagg agggaggacc caggacaatg gctgctgttc atgatctgga 240
 gatggagagc atgaatctga atatggggag agagatgaaa gaagagctgg aggaagagga 300
 gaaaatgaga gaggatgggg gaggtaaaga tcgggccaag agtaaaaagg tccacn 356

<210> 24
 <211> 524
 <212> DNA
 <213> Homo sapiens

<400> 24
 ggggtctcgg tgtcttttgc agctcacatt gcagggtgat ttgctggaat gtccattggc 60
 tacacggtgt ttagctgctt tgataaagca ctgatgaaag atccaagggt ttggatagca 120
 attgctgcat atttagcttg tgtcttattt gctgtgtttt tcaacatttt cctatctcca 180
 gcaaactgac ctgcccctat tgtaagtcaa ttaataaaaa gagccatctg gaggaataa 240
 aaaaaaagg aagactctat gaagaaacag agaagtctca gcaaaggcta acaattttat 300
 atagaggaca aaacagcatt aaactcatca gttgcaaaga ttgcctataa aaggacctta 360
 ggatttaagg aaggggcttc ttaatgtaga aagggaagaa gaagagagaa aagaagggt 420
 gtaaaaacta gagattgggg ccaggcgagc tggctcacgc ctgtaatccc agcactttgg 480
 gaggctgagg cgggtgaaat cacctgaggt catgagttca agac 524

<210> 25
 <211> 428
 <212> DNA
 <213> Homo sapiens

<400> 25
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caatctttgc aactgatgag tttaatgctg ttttgtcctc tatataaaat tgttagcctt	120
ttctgagact tctctgtttc ttcataagagt cttccttttt tttattattt cctccagatg	180
gctctttttta ttaattgact tacaataggg gcaggtcagt ttgctggaga taggaaaatg	240
ttgaaaaaca cagcaaataa gacacaagct aaatatgcag caattgctat ccaaaacctt	300
ggatctttca gcagtgtttt atcaaagcag ctaaaccacg ttagccaat ggacattcca	360
gcaaatccac ctgcaatgtg agctgcaaaa gacaccttgg gagaaaagga gggaaaatgg	420
aaataagt	428

<210> 26
 <211> 271
 <212> DNA
 <213> Homo sapiens

<400> 26	
ctcgaaactg tgaaaacaca gcaaataaga cacaagctaa atatgcagca attgctatcc	60
aaaaccttgg atcttttcagc agtgctttat caaagcagct aaacaccgtg tagccaatgg	120
acattccagc aaatccacct gcaatgtgag ctgcaaaaga cacctgggag aaaaggaggg	180
aaaatggaaa tcagtgaaga caatgctaatt tgtgtatttc agttgcatct ctcttattca	240
aacacaaata ccgtcacagt taaacaagcg t	271

<210> 27
 <211> 262
 <212> DNA
 <213> Homo sapiens

<400> 27	
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atcttttcagc agtgctttat caaagcagct aaacaccgtg tagcgcatgg acattccagc	120
aaatccacct gcaatgtgag ctgcaaaaga caccttggga gaaaaggagg gaaaatggaa	180
ataagtgaag acaatgctaa ttgtgtattt cagttgcatc tctcttattc aaacacaaat	240
accgtcacag ttaaacaagc gt	262

<210> 28
 <211> 120
 <212> DNA
 <213> Homo sapiens

<400> 28	
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ttgctatcca aaaccttgga tctttcagca gtgctttatc aaagcagcta aacaccgtgt 120

<210> 29
 <211> 894
 <212> DNA
 <213> Homo sapiens

<400> 29
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 tgctgcagct gtgggtggggg tgcccctgga gatggtgcat ggagccaccc gaattgggct 180
 tgtctacgtg gccggtgttg tggcagggtc cttggcagtg tctagtggct gacatgaccg 240
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 ggagggaaag caggaccca gggagcgctt ggaaggttct tctcatcac aggttcagta 720
 agcgggcaaa cacgcacaaa cactgcgctt gtattgtgtt atttggccac gggggcacct 780
 ctgcgaaggg ctgcgggcga aacacaagac aaacggacta acacaagaac aaggggcgaa 840
 tcatcgcgcg ggagcacttg gaaagcaggt taaaacggga cacaaggaca cttt 894

<210> 30
 <211> 344
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (19)..(19)
 <223> "n" is A, C, G, or T

<220>
 <221> misc_feature
 <222> (49)..(49)
 <223> "n" is A, C, G, or T

<220>
 <221> misc_feature
 <222> (92)..(92)
 <223> "n" is A, C, G, or T

<220>
 <221> misc_feature
 <222> (130)..(130)
 <223> "n" is A, C, G, or T

<400> 30
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 aagaaacctn gcaggcgctc cctgtgggtg ctgcttttcc ctcccctccc cgaccttggg 180
 cctccagccc tcagggggga ggcggcagct ttaagtccag caggggtgtag gcaaagatgt 240
 tccagaagac agcgaacagc acgaagacgg tgtacatggc cacaaaaatc caccacagtg 300
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<210> 31
 <211> 1140
 <212> DNA
 <213> Homo sapiens

<400> 31
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 gtggggcgccc gcagctgcga ggagctcact gcggtcctaa ccccgccgca gctcctcgga 120
 cgcaggttta acttctttat tcaacaaaaa tgcggattca gaaaagcacc caggaagggtt 180
 gaacctcgaa gatcagaccc agggacaagt ggtgaagcat acaagagaag tgctttgatt 240
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 gatagcataa gaccacaaaa agaaggagac ttcagaaagg agattaacaa gtggtggaat 480
 aacctaagtg atggccagcg gactgtgaca ggtattatag ctgcaaattg ccttgtattc 540
 tgtttatgga gagtaccttc tctgcagcgg acaatgatca gatatttcac atcgaatcca 600
 gcctcaaagg tcctttgttc tccaatgttg ctgtcaacat tcagtcactt ctccttattt 660
 cacatggcag caaatatgta tgttttgtgg agcttctctt ccagcatagt gaacattctg 720

gggtcaagagc agttcatggc agtgtaccta tctgcaggtg ttattttccaa ttttgtcagt	780
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atgacagtcc tcgcagctgt ctgcactaag atcccagaag ggaggcttgc cattattttc	900
cttccgatgt tcacgttcac agcaggggaat gccctgaaag ccattatcgc catggataca	960
gcaggaatga tcctgggatg gaaatttttt gatcatgcgg cacatcttgg gggagctctt	1020
tttggaatat ggtatgttac ttacggtcac gaactgattt ggaagaacag ggagccgcta	1080
gtgaaaatct ggcatgaaat aaggactaat ggccccaaaa aaggaggtgg ctctaagtaa	1140

<210> 32
 <211> 2964
 <212> DNA
 <213> Homo sapiens

<400> 32	
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gacccccag agacccccgg cggcggcagc ctgccttgct ctgccaggaa ccatgagtga	120
ggcccgccagg gacagcacga gcagcctgca gcgcaagaag ccaccctggc taaagctgga	180
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acaggctttc ctgaggagtg tgagtatgcc agccgagaca gccacatct cttcacccca	300
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ggggaccgcc gactggtttg gagtgagcaa ggacagtgc agcaccaga aatggcagcg	420
caagagcatc cgtcactgca gccagcgcta cgggaagctg aagccccagg tcctccggga	480
gctggacctg ccagccagg acaacgtgtc gctgaccagc accgagacgc cccccact	540
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gccgggtgct gctcctctct gctccttctc cagctccgc tcaggtttcc accggtccc	720
gcggcggcgc aagcgagagt cgggtggcaa gatgagcttc cgggcggccg cagcgctgat	780
gaaaggccgc tccgttaggg atggcacctt tcgccgggca cagcgtcgaa gcttactcc	840
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tgcccgggaa ggtatcctcc atgaagagct gtccacatac ccgatgaag ttttcgagtc	960
cccatcgag gcagcgctaa aggactggga gaaggcaccg gagcaggcg acctcaccgg	1020
cggggccctg gaccgcagcg agcttgagcg cagccacctg atgctgcct tggagcgagg	1080

cttgttctact	tctgttgaac	ccctcgtact	gccgggcatt	tattatacta	cttcctgtca	2880
taaccttcta	acttgtttct	tgacgaccac	ctcatgtggc	caataaatga	actgggagcg	2940
ttttaaaaaa	aaaaaaaaaa	aaaa				2964

<210> 33
 <211> 2643
 <212> DNA
 <213> Homo sapiens

<400> 33	
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cctgccacgc	
cgcaagagaa	
tgtctgtggc	
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ccgctgccct	120
cctcaagggg	
cgctcgggtgc	
tggatgccac	
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Arg Glu Gln Thr Gly Thr Gly Pro Leu Ser Gln Lys Cys Trp Glu Pro
35 40 45

Glu Pro Asp Ala Pro Ser Gln Pro Gly Pro Ala Leu Trp Ser Arg Gly
50 55 60

Arg Ala Arg Thr Gln Ala Leu Ala Gly Gly Ser Ser Leu Gln Gln Leu
65 70 75 80

Asp Pro Glu Asn Thr Gly Phe Ile Gly Ala Asp Thr Phe Thr Gly Leu
85 90 95

Val His Ser His Glu Leu Pro Leu Asp Pro Ala Lys Leu Asp Met Leu
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Val Ala Leu Ala Gln Ser Asn Glu Gln Gly Gln Val Cys Tyr Gln Glu
115 120 125

Leu Val Asp Leu Ile Ser Ser Lys Arg Ser Ser Ser Phe Lys Arg Ala
130 135 140

Ile Ala Asn Gly Gln Arg Ala Leu Pro Arg Asp Gly Pro Leu Asp Glu
145 150 155 160

Pro Gly Leu Gly Val Tyr Lys Arg Phe Val Arg Tyr Val Ala Tyr Glu
165 170 175

Ile Leu Pro Cys Glu Val Asp Arg Arg Trp Tyr Phe Tyr Arg His Arg
180 185 190

Ser Cys Pro Pro Pro Val Phe Met Ala Ser Val Thr Leu Ala Gln Ile
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Ile Val Phe Leu Cys Tyr Gly Ala Arg Leu Asn Lys Trp Val Leu Gln
210 215 220

Thr Tyr His Pro Glu Tyr Met Lys Ser Pro Leu Val Tyr His Pro Gly

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His Arg Ala Arg	Ala Trp Arg Phe Leu Thr Tyr Met Phe Met His Val	245		250		255
Gly Leu Glu Gln	Leu Gly Phe Asn Ala Leu Leu Gln Leu Met Ile Gly	260		265		270
Val Pro Leu Glu	Met Val His Gly Leu Leu Arg Ile Ser Leu Leu Tyr	275		280		285
Leu Ala Gly Val	Leu Ala Gly Ser Leu Thr Val Ser Ile Thr Asp Met	290		295		300
Arg Ala Pro Val	Val Gly Gly Ser Gly Gly Val Tyr Ala Leu Cys Ser	305		310		315
Ala His Leu Ala	Asn Val Val Met Asn Trp Ala Gly Met Arg Cys Pro	325		330		335
Tyr Lys Leu Leu	Arg Met Val Leu Ala Leu Val Cys Met Ser Ser Glu	340		345		350
Val Gly Arg Ala	Val Trp Leu Arg Phe Ser Pro Pro Leu Pro Ala Ser	355		360		365
Gly Pro Gln Pro	Ser Phe Met Ala His Leu Ala Gly Ala Val Val Gly	370		375		380
Val Ser Met Gly	Leu Thr Ile Leu Arg Ser Tyr Glu Glu Arg Leu Arg	385		390		395
Asp Gln Cys Gly	Trp Trp Val Val Leu Leu Ala Tyr Gly Thr Phe Leu	405		410		415
Leu Phe Ala Val	Phe Trp Asn Val Phe Ala Tyr Asp Leu Leu Gly Ala	420		425		430
His Ile Pro Pro	Pro Pro	435				

<210> 37
 <211> 292

<212> PRT
 <213> Homo sapiens

<400> 37

Met Asn Leu Asn Met Gly Arg Glu Met Lys Glu Glu Leu Glu Glu Glu
 1 5 10 15

Glu Lys Met Arg Glu Asp Gly Gly Gly Lys Asp Arg Ala Lys Ser Lys
 20 25 30

Lys Val His Arg Ile Val Ser Lys Trp Met Leu Pro Glu Lys Ser Arg
 35 40 45

Gly Thr Tyr Leu Glu Arg Ala Asn Cys Phe Pro Pro Pro Val Phe Ile
 50 55 60

Ile Ser Ile Ser Leu Ala Glu Leu Ala Val Phe Ile Tyr Tyr Ala Val
 65 70 75 80

Trp Lys Pro Gln Lys Gln Trp Ile Thr Leu Asp Thr Gly Ile Leu Glu
 85 90 95

Ser Pro Phe Ile Tyr Ser Pro Glu Lys Arg Glu Glu Ala Trp Arg Phe
 100 105 110

Ile Ser Tyr Met Leu Val His Ala Gly Val Gln His Ile Leu Gly Asn
 115 120 125

Leu Cys Met Gln Leu Val Leu Gly Ile Pro Leu Glu Met Val His Lys
 130 135 140

Gly Leu Arg Val Gly Leu Val Tyr Leu Ala Gly Val Ile Ala Gly Ser
 145 150 155 160

Leu Ala Ser Ser Ile Phe Asp Pro Leu Arg Tyr Leu Val Gly Ala Ser
 165 170 175

Gly Gly Val Tyr Ala Leu Met Gly Gly Tyr Phe Met Asn Val Leu Val
 180 185 190

Asn Phe Gln Glu Met Ile Pro Ala Phe Gly Ile Phe Arg Leu Leu Ile
 195 200 205

Ile Ile Leu Ile Ile Val Leu Asp Met Gly Phe Ala Leu Tyr Arg Arg
 210 215 220

Phe Phe Val Pro Glu Asp Gly Ser Pro Val Ser Phe Ala Ala His Ile
 225 230 235 240

Ala Gly Gly Phe Ala Gly Met Ser Ile Gly Tyr Thr Val Phe Ser Cys
 245 250 255

Phe Asp Lys Ala Leu Leu Lys Asp Pro Arg Phe Trp Ile Ala Ile Ala
 260 265 270

Ala Tyr Leu Ala Cys Val Leu Phe Ala Val Phe Phe Asn Ile Phe Leu
 275 280 285

Ser Pro Ala Asn
 290

<210> 38
 <211> 174
 <212> PRT
 <213> Homo sapiens

<400> 38

Leu Cys Arg Val Gln His Ile Leu Gly Asn Leu Cys Met Gln Leu Val
 1 5 10 15

Leu Gly Ile Pro Leu Glu Met Val His Lys Gly Leu Arg Val Gly Leu
 20 25 30

Val Tyr Leu Ala Gly Val Ile Ala Gly Ser Leu Ala Ser Ser Ile Phe
 35 40 45

Asp Pro Leu Arg Tyr Leu Val Gly Ala Ser Gly Gly Val Tyr Ala Leu
 50 55 60

Met Gly Gly Tyr Phe Met Asn Val Leu Val Asn Phe Gln Glu Met Ile
 65 70 75 80

Pro Ala Phe Gly Ile Phe Arg Leu Leu Ile Ile Ile Leu Ile Ile Val
 85 90 95

Leu Asp Met Gly Phe Ala Leu Tyr Arg Arg Phe Phe Val Pro Glu Asp
 100 105 110

Gly Ser Pro Val Ser Phe Ala Ala His Ile Ala Gly Gly Phe Ala Gly
 115 120 125

Met Ser Ile Gly Tyr Thr Val Phe Ser Cys Phe Asp Lys Ala Leu Leu
 130 135 140

Lys Asp Pro Arg Phe Trp Ile Ala Ile Ala Ala Tyr Leu Ala Cys Val
 145 150 155 160

Leu Phe Ala Val Phe Phe Asn Ile Phe Leu Ser Pro Ala Asn
 165 170

<210> 39
 <211> 162
 <212> PRT
 <213> Homo sapiens

<400> 39

Met Gln Leu Val Leu Gly Ile Pro Leu Glu Met Val His Lys Gly Leu
 1 5 10 15

Arg Val Gly Leu Val Tyr Leu Ala Gly Val Ile Ala Gly Ser Leu Ala
 20 25 30

Ser Ser Ile Phe Asp Pro Leu Arg Tyr Leu Val Gly Ala Ser Gly Gly
 35 40 45

Val Tyr Ala Leu Met Gly Gly Tyr Phe Met Asn Val Leu Val Asn Phe
 50 55 60

Gln Glu Met Ile Pro Ala Phe Gly Ile Phe Arg Leu Leu Ile Ile Ile
 65 70 75 80

Leu Ile Ile Val Leu Asp Met Gly Phe Ala Leu Tyr Arg Arg Phe Phe
 85 90 95

Val Pro Glu Asp Gly Ser Pro Val Ser Phe Ala Ala His Ile Ala Gly
 100 105 110

Gly Phe Ala Gly Met Ser Ile Gly Tyr Thr Val Phe Ser Cys Phe Asp
 115 120 125

Lys Ala Leu Leu Lys Asp Pro Arg Phe Trp Ile Ala Ile Ala Ala Tyr
 130 135 140

Leu Ala Cys Val Leu Phe Ala Val Phe Phe Asn Ile Phe Leu Ser Pro
 145 150 155 160

Ala Asn

<210> 40
 <211> 379
 <212> PRT
 <213> Homo sapiens

<400> 40

Met Ala Trp Arg Gly Trp Ala Gln Arg Gly Trp Gly Cys Gly Gln Ala
 1 5 10 15

Trp Gly Ala Ser Val Gly Gly Arg Ser Cys Glu Glu Leu Thr Ala Val
 20 25 30

Leu Thr Pro Pro Gln Leu Leu Gly Arg Arg Phe Asn Phe Phe Ile Gln
 35 40 45

Gln Lys Cys Gly Phe Arg Lys Ala Pro Arg Lys Val Glu Pro Arg Arg
 50 55 60

Ser Asp Pro Gly Thr Ser Gly Glu Ala Tyr Lys Arg Ser Ala Leu Ile
 65 70 75 80

Pro Pro Val Glu Glu Thr Val Phe Tyr Pro Ser Pro Tyr Pro Ile Arg
 85 90 95

Ser Leu Ile Lys Pro Leu Phe Phe Thr Val Gly Phe Thr Gly Cys Ala
 100 105 110

Phe Gly Ser Ala Ala Ile Trp Gln Tyr Glu Ser Leu Lys Ser Arg Val
 115 120 125

Gln Ser Tyr Phe Asp Gly Ile Lys Ala Asp Trp Leu Asp Ser Ile Arg
 130 135 140

Pro Gln Lys Glu Gly Asp Phe Arg Lys Glu Ile Asn Lys Trp Trp Asn
 145 150 155 160

Asn Leu Ser Asp Gly Gln Arg Thr Val Thr Gly Ile Ile Ala Ala Asn
 165 170 175

Val Leu Val Phe Cys Leu Trp Arg Val Pro Ser Leu Gln Arg Thr Met
 180 185 190

Ile Arg Tyr Phe Thr Ser Asn Pro Ala Ser Lys Val Leu Cys Ser Pro
 195 200 205

Met Leu Leu Ser Thr Phe Ser His Phe Ser Leu Phe His Met Ala Ala
 210 215 220

Asn Met Tyr Val Leu Trp Ser Phe Ser Ser Ser Ile Val Asn Ile Leu
 225 230 235 240

Gly Gln Glu Gln Phe Met Ala Val Tyr Leu Ser Ala Gly Val Ile Ser
 245 250 255

Asn Phe Val Ser Tyr Leu Gly Lys Val Ala Thr Gly Arg Tyr Gly Pro
 260 265 270

Ser Leu Gly Ala Ser Gly Ala Ile Met Thr Val Leu Ala Ala Val Cys
 275 280 285

Thr Lys Ile Pro Glu Gly Arg Leu Ala Ile Ile Phe Leu Pro Met Phe
 290 295 300

Thr Phe Thr Ala Gly Asn Ala Leu Lys Ala Ile Ile Ala Met Asp Thr
 305 310 315 320

Ala Gly Met Ile Leu Gly Trp Lys Phe Phe Asp His Ala Ala His Leu
 325 330 335

Gly Gly Ala Leu Phe Gly Ile Trp Tyr Val Thr Tyr Gly His Glu Leu
 340 345 350

Ile Trp Lys Asn Arg Glu Pro Leu Val Lys Ile Trp His Glu Ile Arg
 355 360 365

Thr Asn Gly Pro Lys Lys Gly Gly Gly Ser Lys
 370 375

<210> 41
 <211> 855
 <212> PRT
 <213> Homo sapiens

<400> 41

Met Ser Glu Ala Arg Arg Asp Ser Thr Ser Ser Leu Gln Arg Lys Lys
 1 5 10 15

Pro Pro Trp Leu Lys Leu Asp Ile Pro Ser Ala Val Pro Leu Thr Ala
 20 25 30

Glu Glu Pro Ser Phe Leu Gln Pro Leu Arg Arg Gln Ala Phe Leu Arg
 35 40 45

Ser Val Ser Met Pro Ala Glu Thr Ala His Ile Ser Ser Pro His His
 50 55 60

Glu Leu Arg Arg Pro Val Leu Gln Arg Gln Thr Ser Ile Thr Gln Thr
 65 70 75 80

Ile Arg Arg Gly Thr Ala Asp Trp Phe Gly Val Ser Lys Asp Ser Asp
 85 90 95

Ser Thr Gln Lys Trp Gln Arg Lys Ser Ile Arg His Cys Ser Gln Arg
 100 105 110

Tyr Gly Lys Leu Lys Pro Gln Val Leu Arg Glu Leu Asp Leu Pro Ser
 115 120 125

Gln Asp Asn Val Ser Leu Thr Ser Thr Glu Thr Pro Pro Pro Leu Tyr
 130 135 140

Val Gly Pro Cys Gln Leu Gly Met Gln Lys Ile Ile Asp Pro Leu Ala
 145 150 155 160

Arg Gly Arg Ala Phe Arg Val Ala Asp Asp Thr Ala Glu Gly Leu Ser
 165 170 175

Ala Pro His Thr Pro Val Thr Pro Gly Ala Ala Ser Leu Cys Ser Phe
 180 185 190

Ser Ser Ser Arg Ser Gly Phe His Arg Leu Pro Arg Arg Arg Lys Arg

195					200					205						
Glu	Ser	Val	Ala	Lys	Met	Ser	Phe	Arg	Ala	Ala	Ala	Ala	Ala	Leu	Met	Lys
210					215					220						
Gly	Arg	Ser	Val	Arg	Asp	Gly	Thr	Phe	Arg	Arg	Ala	Gln	Arg	Arg	Ser	
225					230					235					240	
Phe	Thr	Pro	Ala	Ser	Phe	Leu	Glu	Glu	Asp	Thr	Thr	Asp	Phe	Pro	Asp	
245					250					255						
Glu	Leu	Asp	Thr	Ser	Phe	Phe	Ala	Arg	Glu	Gly	Ile	Leu	His	Glu	Glu	
260					265					270						
Leu	Ser	Thr	Tyr	Pro	Asp	Glu	Val	Phe	Glu	Ser	Pro	Ser	Glu	Ala	Ala	
275					280					285						
Leu	Lys	Asp	Trp	Glu	Lys	Ala	Pro	Glu	Gln	Ala	Asp	Leu	Thr	Gly	Gly	
290					295					300						
Ala	Leu	Asp	Arg	Ser	Glu	Leu	Glu	Arg	Ser	His	Leu	Met	Leu	Pro	Leu	
305					310					315					320	
Glu	Arg	Gly	Trp	Arg	Lys	Gln	Lys	Glu	Gly	Ala	Ala	Ala	Pro	Gln	Pro	
325					330					335						
Lys	Val	Arg	Leu	Arg	Gln	Glu	Val	Val	Ser	Thr	Ala	Gly	Pro	Arg	Arg	
340					345					350						
Gly	Gln	Arg	Ile	Ala	Val	Pro	Val	Arg	Lys	Leu	Phe	Ala	Arg	Glu	Lys	
355					360					365						
Arg	Pro	Tyr	Gly	Leu	Gly	Met	Val	Gly	Arg	Leu	Thr	Asn	Arg	Thr	Tyr	
370					375					380						
Arg	Lys	Arg	Ile	Asp	Ser	Phe	Val	Lys	Arg	Gln	Ile	Glu	Asp	Met	Asp	
385					390					395					400	
Asp	His	Arg	Pro	Phe	Phe	Thr	Tyr	Trp	Leu	Thr	Phe	Val	His	Ser	Leu	
405					410					415						
Val	Ala	Ile	Leu	Ala	Val	Cys	Ile	Tyr	Gly	Ile	Ala	Pro	Val	Gly	Phe	
420					425					430						

Ser Gln His Glu Thr Val Asp Ser Val Leu Arg Asn Arg Gly Val Tyr
 435 440 445

Glu Asn Val Lys Tyr Val Gln Gln Glu Asn Phe Trp Ile Gly Pro Ser
 450 455 460

Ser Glu Ala Leu Ile His Leu Gly Ala Lys Phe Ser Pro Cys Met Arg
 465 470 475 480

Gln Asp Pro Gln Val His Ser Phe Ile Arg Ser Ala Arg Glu Arg Glu
 485 490 495

Lys His Ser Ala Cys Cys Val Arg Asn Asp Arg Ser Gly Cys Val Gln
 500 505 510

Thr Ser Glu Glu Glu Cys Ser Ser Thr Leu Ala Val Trp Val Lys Trp
 515 520 525

Pro Ile His Pro Ser Ala Pro Glu Leu Ala Gly His Lys Arg Gln Phe
 530 535 540

Gly Ser Val Cys His Gln Asp Pro Arg Val Cys Asp Glu Pro Ser Ser
 545 550 555 560

Glu Asp Pro His Glu Trp Pro Glu Asp Ile Thr Lys Trp Pro Ile Cys
 565 570 575

Thr Lys Asn Ser Ala Gly Asn His Thr Asn His Pro His Met Asp Cys
 580 585 590

Val Ile Thr Gly Arg Pro Cys Cys Ile Gly Thr Lys Gly Arg Cys Glu
 595 600 605

Ile Thr Ser Arg Glu Tyr Cys Asp Phe Met Arg Gly Tyr Phe His Glu
 610 615 620

Glu Ala Thr Leu Cys Ser Gln Val His Cys Met Asp Asp Val Cys Gly
 625 630 635 640

Leu Leu Pro Phe Leu Asn Pro Glu Val Pro Asp Gln Phe Tyr Arg Leu
 645 650 655

Trp Leu Ser Leu Phe Leu His Ala Gly Ile Leu His Cys Leu Val Ser
660 665 670

Ile Cys Phe Gln Met Thr Val Leu Arg Asp Leu Glu Lys Leu Ala Gly
675 680 685

Trp His Arg Ile Ala Ile Ile Tyr Leu Leu Ser Gly Val Thr Gly Asn
690 695 700

Leu Ala Ser Ala Ile Phe Leu Pro Tyr Arg Ala Glu Val Gly Pro Ala
705 710 715 720

Gly Ser Gln Phe Gly Ile Leu Ala Cys Leu Phe Val Glu Leu Phe Gln
725 730 735

Ser Trp Gln Ile Leu Ala Arg Pro Trp Arg Ala Phe Phe Lys Leu Leu
740 745 750

Ala Val Val Leu Phe Leu Phe Thr Phe Gly Leu Leu Pro Trp Ile Asp
755 760 765

Asn Phe Ala His Ile Ser Gly Phe Ile Ser Gly Leu Phe Leu Ser Phe
770 775 780

Ala Phe Leu Pro Tyr Ile Ser Phe Gly Lys Phe Asp Leu Tyr Arg Lys
785 790 795 800

Arg Cys Gln Ile Ile Ile Phe Gln Val Val Phe Leu Gly Leu Leu Ala
805 810 815

Gly Leu Val Val Leu Phe Tyr Val Tyr Pro Val Arg Cys Glu Trp Cys
820 825 830

Glu Phe Leu Thr Cys Ile Pro Phe Thr Asp Lys Phe Cys Glu Lys Tyr
835 840 845

Glu Leu Asp Ala Gln Leu His
850 855

<210> 42
<211> 619
<212> PRT
<213> Homo sapiens

<400> 42

Met Ser Val Ala His Met Ser Leu Gln Ala Ala Ala Leu Leu Lys
1 5 10 15

Gly Arg Ser Val Leu Asp Ala Thr Gly Gln Arg Cys Arg Val Val Lys
20 25 30

Arg Ser Phe Ala Phe Pro Ser Phe Leu Glu Glu Asp Val Val Asp Gly
35 40 45

Ala Asp Thr Phe Asp Ser Ser Phe Phe Ser Lys Glu Glu Met Ser Ser
50 55 60

Met Pro Asp Asp Val Phe Glu Ser Pro Pro Leu Ser Ala Ser Tyr Phe
65 70 75 80

Arg Gly Ile Pro His Ser Ala Ser Pro Val Ser Pro Asp Gly Val Gln
85 90 95

Ile Pro Leu Lys Glu Tyr Gly Arg Ala Pro Val Pro Gly Pro Arg Arg
100 105 110

Gly Lys Arg Ile Ala Ser Lys Val Lys His Phe Ala Phe Asp Arg Lys
115 120 125

Lys Arg His Tyr Gly Leu Gly Val Val Gly Asn Trp Leu Asn Arg Ser
130 135 140

Tyr Arg Arg Ser Ile Ser Ser Thr Val Gln Arg Gln Leu Glu Ser Phe
145 150 155 160

Asp Ser His Arg Pro Tyr Phe Thr Tyr Trp Leu Thr Phe Val His Val
165 170 175

Ile Ile Thr Leu Leu Val Ile Cys Thr Tyr Gly Ile Ala Pro Val Gly
180 185 190

Phe Ala Gln His Val Thr Thr Gln Leu Val Leu Arg Asn Lys Gly Val
195 200 205

Tyr Glu Ser Val Lys Tyr Ile Gln Gln Glu Asn Phe Trp Val Gly Pro
210 215 220

Ser Ser Ile Asp Leu Ile His Leu Gly Ala Lys Phe Ser Pro Cys Ile
225 230 235 240

Arg Lys Asp Gly Gln Ile Glu Gln Leu Val Leu Arg Glu Arg Asp Leu
245 250 255

Glu Arg Asp Ser Gly Cys Cys Val Gln Asn Asp His Ser Gly Cys Ile
260 265 270

Gln Thr Gln Arg Lys Asp Cys Ser Glu Thr Leu Ala Thr Phe Val Lys
275 280 285

Trp Gln Asp Asp Thr Gly Pro Pro Met Asp Lys Ser Asp Leu Gly Gln
290 295 300

Lys Arg Thr Ser Gly Ala Val Cys His Gln Asp Pro Arg Thr Cys Glu
305 310 315 320

Glu Pro Ala Ser Ser Gly Ala His Ile Trp Pro Asp Asp Ile Thr Lys
325 330 335

Trp Pro Ile Cys Thr Glu Gln Ala Arg Ser Asn His Thr Gly Phe Leu
340 345 350

His Met Asp Cys Glu Ile Lys Gly Arg Pro Cys Cys Ile Gly Thr Lys
355 360 365

Gly Ser Cys Glu Ile Thr Thr Arg Glu Tyr Cys Glu Phe Met His Gly
370 375 380

Tyr Phe His Glu Glu Ala Thr Leu Cys Ser Gln Val His Cys Leu Asp
385 390 395 400

Lys Val Cys Gly Leu Leu Pro Phe Leu Asn Pro Glu Val Pro Asp Gln
405 410 415

Phe Tyr Arg Leu Trp Leu Ser Leu Phe Leu His Ala Gly Val Val His
420 425 430

Cys Leu Val Ser Val Val Phe Gln Met Thr Ile Leu Arg Asp Leu Glu
435 440 445

Lys Leu Ala Gly Trp His Arg Ile Ala Ile Ile Phe Ile Leu Ser Gly
 450 455 460

Ile Thr Gly Asn Leu Ala Ser Ala Ile Phe Leu Pro Tyr Arg Ala Glu
 465 470 475 480

Val Gly Pro Ala Gly Ser Gln Phe Gly Leu Leu Ala Cys Leu Phe Val
 485 490 495

Glu Leu Phe Gln Ser Trp Pro Leu Leu Glu Arg Pro Trp Lys Ala Phe
 500 505 510

Leu Asn Leu Ser Ala Ile Val Leu Phe Leu Phe Ile Cys Gly Leu Leu
 515 520 525

Pro Trp Ile Asp Asn Ile Ala His Ile Phe Gly Phe Leu Ser Gly Leu
 530 535 540

Leu Leu Ala Phe Ala Phe Leu Pro Tyr Ile Thr Phe Gly Thr Ser Asp
 545 550 555 560

Lys Tyr Arg Lys Arg Ala Leu Ile Leu Val Ser Leu Leu Ala Phe Ala
 565 570 575

Gly Leu Phe Ala Ala Leu Val Leu Trp Leu Tyr Ile Tyr Pro Ile Asn
 580 585 590

Trp Pro Trp Ile Glu His Leu Thr Cys Phe Pro Phe Thr Ser Arg Phe
 595 600 605

Cys Glu Lys Tyr Glu Leu Asp Gln Val Leu His
 610 615

<210> 43
 <211> 434
 <212> PRT
 <213> Homo sapiens

<400> 43

Met Gly Arg Gly Leu Trp Glu Ala Trp Pro Pro Ala Gly Ser Ser Ala
 1 5 10 15

Val Ala Lys Gly Asn Cys Arg Glu Glu Ala Glu Gly Ala Glu Asp Arg

	20		25		30														
Gln	Pro	Ala	Ser	Arg	Arg	Gly	Ala	Gly	Thr	Thr	Ala	Ala	Met	Ala	Ala				
	35						40					45							
Ser	Gly	Pro	Gly	Cys	Arg	Ser	Trp	Cys	Leu	Cys	Pro	Glu	Val	Pro	Ser				
	50					55					60								
Ala	Thr	Phe	Phe	Thr	Ala	Leu	Leu	Ser	Leu	Leu	Val	Ser	Gly	Pro	Arg				
65					70					75					80				
Leu	Phe	Leu	Leu	Gln	Gln	Pro	Leu	Ala	Pro	Ser	Gly	Leu	Thr	Leu	Lys				
				85					90					95					
Ser	Glu	Ala	Leu	Arg	Asn	Trp	Gln	Val	Tyr	Arg	Leu	Val	Thr	Tyr	Ile				
			100					105					110						
Phe	Val	Tyr	Glu	Asn	Pro	Ile	Ser	Leu	Leu	Cys	Gly	Ala	Ile	Ile	Ile				
		115					120					125							
Trp	Arg	Phe	Ala	Gly	Asn	Phe	Glu	Arg	Thr	Val	Gly	Thr	Val	Arg	His				
	130					135					140								
Cys	Phe	Phe	Thr	Val	Ile	Phe	Ala	Ile	Phe	Ser	Ala	Ile	Ile	Phe	Leu				
145					150					155					160				
Ser	Phe	Glu	Ala	Val	Ser	Ser	Leu	Ser	Lys	Leu	Gly	Glu	Val	Glu	Asp				
				165					170					175					
Ala	Arg	Gly	Phe	Thr	Pro	Val	Ala	Phe	Ala	Met	Leu	Gly	Val	Thr	Thr				
			180					185					190						
Val	Arg	Ser	Arg	Met	Arg	Arg	Ala	Leu	Val	Phe	Gly	Met	Val	Val	Pro				
		195					200					205							
Ser	Val	Leu	Val	Pro	Trp	Leu	Leu	Leu	Gly	Ala	Ser	Trp	Leu	Ile	Pro				
	210					215					220								
Gln	Thr	Ser	Phe	Leu	Ser	Asn	Val	Cys	Gly	Leu	Ser	Ile	Gly	Leu	Ala				
225					230				235						240				
Tyr	Ala	His	Leu	Leu	Leu	Phe	His	Arg	Pro	Leu	Arg	Ala	Ser	Gly	Ala				
			245						250					255					

Glu Ala Arg Ser Asp Leu Pro Leu Gln Pro Asp Glu Glu Asp Ile Arg
 260 265 270

Val Gln Val Arg Leu Arg Val Phe Ser Arg Glu Glu Gly Ser Pro Glu
 275 280 285

Pro Glu Thr Glu Pro Gly Ala Trp Leu Leu Pro His Thr Glu Leu Pro
 290 295 300

Pro Ser Pro Val Pro Lys Pro Pro Cys Val Pro Asp Ala Ala Arg Gln
 305 310 315 320

Trp Ser Glu Ala Gly Leu Leu Ala Ser Cys Thr Pro Gly His Met Pro
 325 330 335

Thr Leu Pro Pro Tyr Gln Pro Ala Ser Gly Leu Cys Tyr Val Gln Asn
 340 345 350

His Phe Gly Pro Asn Pro Thr Ser Ser Ser Val Tyr Pro Ala Ser Ala
 355 360 365

Gly Thr Ser Leu Gly Ile Gln Pro Pro Thr Pro Val Asn Ser Pro Gly
 370 375 380

Thr Val Tyr Ser Gly Ala Leu Gly His Gln Gly Leu Gln Ala Pro Arg
 385 390 395 400

Ser Pro Pro Gly Ser Pro Cys Pro Glu Arg Ile Ser Arg Glu Val Ile
 405 410 415

Ser Leu Gly Leu Leu Lys Val Leu Pro Lys Ser Leu Leu Thr Lys Val
 420 425 430

Thr Tyr

<210> 44
 <211> 386
 <212> PRT
 <213> Homo sapiens
 <400> 44

Met His Ala Arg Gly Pro His Gly Gln Leu Ser Pro Ala Leu Pro Leu
1 5 10 15

Ala Ser Ser Val Leu Met Leu Leu Met Ser Thr Leu Trp Leu Val Gly
20 25 30

Ala Gly Pro Gly Leu Val Leu Ala Pro Glu Leu Leu Leu Asp Pro Trp
35 40 45

Gln Val His Arg Leu Leu Thr His Ala Leu Gly His Thr Ala Leu Pro
50 55 60

Gly Leu Leu Leu Ser Leu Leu Leu Leu Pro Thr Val Gly Trp Gln Gln
65 70 75 80

Glu Cys His Leu Gly Thr Leu Arg Phe Leu His Ala Ser Ala Leu Leu
85 90 95

Ala Leu Ala Ser Gly Leu Leu Ala Val Leu Leu Ala Gly Leu Gly Leu
100 105 110

Ser Ser Ala Ala Gly Ser Cys Gly Tyr Met Pro Val His Leu Ala Met
115 120 125

Leu Ala Gly Glu Gly His Arg Pro Arg Arg Pro Arg Gly Ala Leu Pro
130 135 140

Pro Trp Leu Ser Pro Trp Leu Leu Leu Ala Leu Thr Pro Leu Leu Ser
145 150 155 160

Ser Glu Pro Pro Phe Leu Gln Leu Leu Cys Gly Leu Leu Ala Gly Leu
165 170 175

Ala Tyr Ala Ala Gly Ala Phe Arg Trp Leu Glu Pro Ser Glu Arg Arg
180 185 190

Leu Gln Val Leu Gln Glu Gly Val Leu Cys Arg Thr Leu Ala Gly Cys
195 200 205

Trp Pro Leu Arg Leu Leu Ala Thr Pro Gly Ser Leu Ala Glu Leu Pro
210 215 220

Val Thr His Pro Ala Gly Val Arg Pro Pro Ile Pro Gly Pro Pro Tyr


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<210> 46
<211> 470
<212> PRT
<213> Mus musculus

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<400> 46
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Met Ala Tyr Trp Glu Lys Leu Leu Pro His Val Val Gln Glu Leu Asp
1           5           10           15

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Ala Gly Ser Gly Ser Gly Ser Ser Cys Ser Val Gly Asp Asp Leu Pro
20           25           30

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Arg Gln Cys Val Glu Leu Gly Pro Arg Val Arg Val Gln Asp Met Arg
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35					40					45					
Val	Leu	Trp	Leu	Cys	Ala	Arg	Trp	Ala	Gly	Ile	Ser	Val	Thr	Leu	Ser
50						55					60				
Glu	Leu	Gly	Glu	Arg	Arg	Ala	Glu	Gln	Ala	Glu	Arg	Ala	Gly	Arg	Gly
65					70					75					80
Gly	Ala	Glu	Arg	Ser	Ala	Glu	Gln	Pro	Leu	Pro	Ala	Ser	Ala	Asp	Pro
				85					90					95	
Gly	Pro	Arg	Pro	Gly	Ser	Met	Asp	Arg	Ser	Ser	Leu	Leu	Gln	Leu	Ile
			100					105					110		
Gln	Glu	Gln	Gln	Leu	Asp	Pro	Glu	Asn	Thr	Gly	Phe	Ile	Gly	Ala	Asp
			115				120					125			
Thr	Phe	Ala	Gly	Leu	Val	His	Ser	His	Glu	Leu	Pro	Leu	Asp	Pro	Thr
	130					135					140				
Lys	Leu	Asp	Met	Leu	Val	Ala	Leu	Ala	Gln	Ser	Asn	Glu	Arg	Gly	Gln
145					150					155					160
Val	Cys	Tyr	Gln	Glu	Leu	Val	Asp	Leu	Val	Ser	Ala	Met	Ile	Ser	Ser
				165					170					175	
Lys	Arg	Ser	Ser	Ser	Phe	Lys	Arg	Ala	Ile	Ala	Asn	Gly	Gln	Arg	Ala
			180					185					190		
Leu	Pro	Arg	Asp	Gly	Leu	Leu	Asp	Glu	Pro	Gly	Leu	Ser	Val	Tyr	Lys
		195					200					205			
Arg	Phe	Val	Arg	Tyr	Val	Ala	Tyr	Glu	Ile	Leu	Pro	Cys	Glu	Val	Asp
	210					215					220				
Arg	Arg	Trp	Tyr	Phe	Tyr	Arg	His	Arg	Thr	Cys	Pro	Pro	Pro	Val	Phe
225					230					235					240
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